GrummanWorld

Volume 4 Number 9 September 27, 1985

Army Drafts Grumman To Build Next Generation of Automated Test Equipment

Grumman has won the competition to develop the U.S Army's Intermediate Forward Test Equipment (IFTE), the service's next generation of automatic test equipment. The Army Communication and Electronics Command and Grumman signed a full-scale development contract on September 18.

IFTE are computerized test systems designed to detect the faulty components in the Army's weapon systems so the weapons can be repaired quickly right on the battlefield.

"IFTE represent something of a shift in the Army's maintenance policy," says program director Charlie Esposito. "The Army wants to move pieces of its maintenance functions as far forward as possible. The IFTE must be very rugged, very mobile and compact. They're designed to go to battle on the Army's standard two-and-a-half ton truck."

The contract work will be performed by the Electronics Systems Division's Test Equipment Products group. There will be no significant increase in personnel. The hardware will be manufactured in the division's facilities at Great River, Long Island; Houston, Texas, and Salisbury, Maryland.

One of the first weapon systems that IFTE will be used to check is the Raytheon Hawk ground-to-air missile system. But it's only the beginning.

"The Army uses a great variety of systems, including a vast array of smaller systems," says Esposito. "One of the Army's requirements for IFTE is the ability to reconfigure – to test many different things with the same tester. Since they have such a wide spectrum of equipment, it's very important that automatic test equipment be reconfigurable over that entire spectrum."

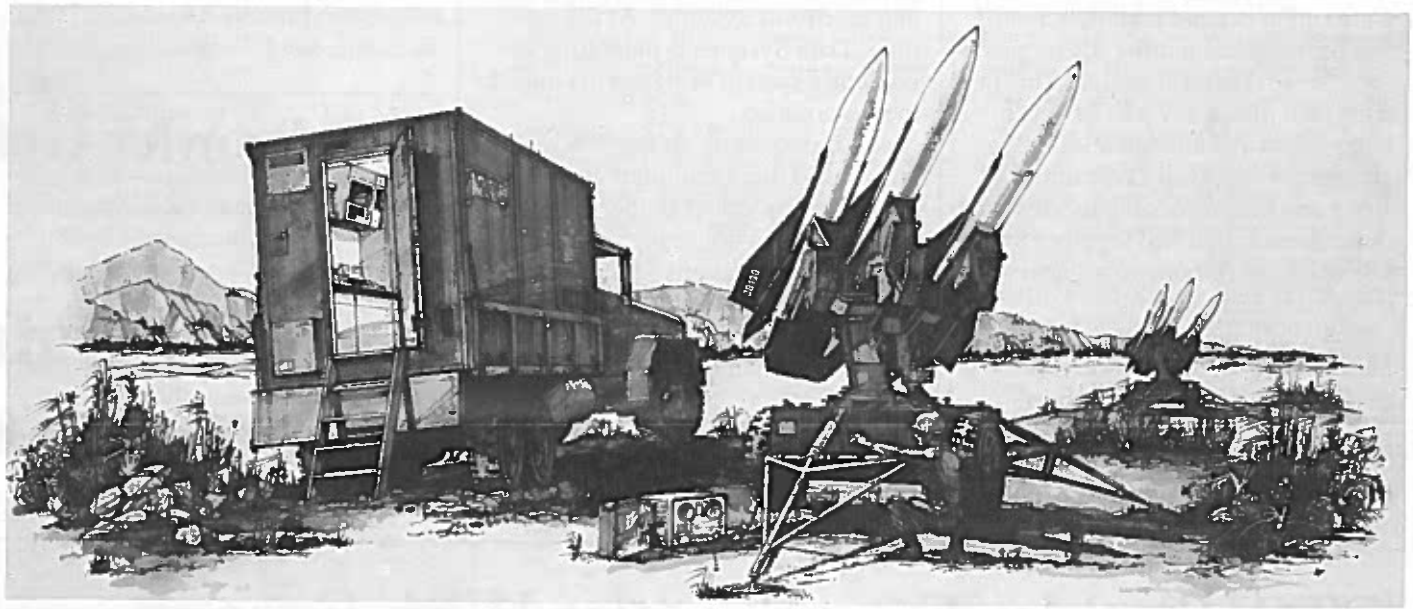
IFTE will actually be three different units. There's the portable tester called the Contact Test Set. This is about the size of a 10-inch portable TV. The soldier will carry it over to the tank or missile system that is out of commission and use it to track down the problem.

The faulty assembly is taken to the Base Shop Test Facility, a shelter on the back of a "deuce-and-a-half" – a 2.5 ton truck. The assembly is then connected to the one of the two Base Shop Test Stations to determine which circuit card in the assembly needs replacing.

The third unit is called CEE: Commercial Equivalent Equipment. The electronics in the CEE will be identical to the Base Shop Test Facility and the Contact Test Set, but the hardware will be commercial quality, making it cheaper and easier to produce.

The Army will put CEE units in the factories of companies that make the Army's weapon systems. As a manufacturer designs a new weapon, it will use the CEE to develop the Test Program Sets – the computer programs needed to test a particular weapon system. Then Army will have the TPS when it receives a new weapon.

The Army will field-test Grumman IFTE full scale development units in about two years. Production will begin after that. ■



On The Front Line. *The first weapon system that the Intermediate Forward Test Equipment (IFTE) will be used to check is the Raytheon Hawk ground-to-air missile system (shown in artist rendering above). The IFTE portable tester, called the Contact Test Set (to the left of the soldier above), will be about the size of a 10-inch portable TV. The technician will carry it over to the crippled weapon system system and use it to track down the problem. The Army technician will take the faulty assembly to the Base Shop Test Facility (far L). He'll then connect the assembly to the one of the two Base Shop Test Stations and determine which circuit card in the assembly needs replacing.*

Dear Grumman World,

I keep hearing rumors that Grumman is going to have a layoff. Is that true?

We expect our employment to grow in some categories as we continue to hire people with special skills and technical specialties. But as we grow we have to keep a sharp eye on our costs. As our business changes, some jobs become unnecessary. If we continued to carry the cost of unnecessary jobs as we add more people to the payroll, our prices would become non-competitive. At that point, everyone's job would be at risk.

Right now we're taking a hard look at all service and supporting departments – those not working directly with product development or manufacturing – to see where we can reduce costs. In addition, administrative jobs in technical and manufacturing areas are being reviewed. This is the best time to make reductions, however, because the overall growth of the business will allow us to reassign some of the affected people to departments that have openings.

At the same time, we're also reducing the number of "job shoppers" who are doing work that could be done by Grumman people.

We work hard to find other Grumman jobs for our displaced people, but reassignment isn't feasible in every case. We don't know just how many people will actually be laid off, but our best estimate is about 200 to 300 by the end of this year. Normal attrition – people retiring or leaving for other jobs – will account for some of this number.

We are working closely with other companies, providing them with a list of the types of people we are trying to place. When business circumstances eliminate a Grumman job and there is no other job in the company for that person, we provide severance pay and other support services to help him or her find another position. This is a painful process. It demands care and compassion. But sometimes it's necessary.

Grumman Corporation Vice President Bob Bradshaw

Marines Enlist Data Systems

Grumman To Replace Computers At Five USMC Bases

Grumman Data Systems has a brand new customer: the U.S. Marine Corps.

On September 13, Data Systems won the Marine Corps Central Processing Unit Augmentation (CPU) contract. Under CPU, Data Systems will manage the replacement of mainframe computers at five Marine Corps installations in the continental U.S., one in Hawaii and one on Okinawa. The Marines have budgeted $47 million for this project.

Each site will get two mainframes, to be installed at each site in two phases over the three-year long installation program. "We expect that the five sites in the continental U.S. will each have one computer up and running by December," says Paul Baker, GDS director of Logistics-Management Information Systems.

Once a computer is on line, GDS will train the Marines' computer operators. At the same time, technicians from the Systems Maintenance Services unit of GDS will start providing around-the-clock maintenance services. They will be under contract through 1993.

Two weeks before the CPU award, Data Systems opened an office in Albany, Georgia, to begin work on another Marine program. Under a subcontract to ATAC Inc. of Mountain View, California, GDS will write modelling and simulation computer programs for the Corps' Standard Supply System.

The subcontract is worth $175,000 over the first six months. GDS is negotiating terms for the following 18 months. "Though it is a relatively small contract, it's another one of many we are anticipating from the Marine Corps," says Baker.

The GDS team in Albany will grow over the next few months to satisfy the ATAC subcontract. It will also increase if GDS wins any of the other Marine contracts it has made bids for.

According to Baker, GDS anticipates additional awards for automated contracting and transportation systems for the Marines' Standard Supply System. ■

It's Official: Holtsville Center Open For Business

HOLTSVILLE, LONG ISLAND, September 10, 1985 – Morning rain clouds forced the ceremonies inside, but they didn't darken the day for the Grummanites at the dedication of the new Data Systems' Holtsville Production Center here.

Grumman Chairman Jack Bierwirth, President George Skurla, Data Systems President John O'Brien and Town of Brookhaven Supervisor Henrietta Acampora officially opened the new 175,000-square-foot facility.

With its brushed chrome and glass exterior and unique triangular floor plan, the two-story facility is now the hub of Data Systems' business computing operations. Data processing for many of Grumman's financial, manufacturing, engineering, and integrated logistics support requirements are now being performed here.

The center gives Grumman ample room to expand both its scientific and business computing operations over the next several years. "This facility will play a key part in our future," Bierwirth told attendees. "We are heavily involved in the aircraft, space and electronics businesses, and those three are all tied together by one common ribbon – computers and computer programs."

"Grumman now has one of the most advanced information processing facilities in this country," O'Brien stated. He thanked the Grummanites who worked to get the facility up and running, "without any interruptions of our corporate information processing capabilities – an excellent example of teamwork."

Now housing 300 people, the building has room for another 200. "This building is expected to accommodate five years of growth," said O'Brien. "As the need for more capabilities arises, we expect to make good use of the additional space, providing even more jobs for the community and better services for our customers."

Acampora called the new Grumman center a cornerstone in the Town of Brookhaven's effort to develop. "Other industries will now locate in Brookhaven just because they see Grumman here," she said.

The center was built because there wasn't room for more people and computers in Bethpage. Computers are increasingly important in the design of Grumman's aircraft, space and electronic systems. At the same time, Data Systems is marketing its computer system design skills outside the corporation.

Consequently, in late 1983 GDS announced that Grumman would build the new center in the Town of Brookhaven to house its business computing operations. The scientific work remains in Bethpage.

Construction started early in 1984. Grumman Data Systems people installed the computer systems during the weeks leading to Memorial Day 1985. About 300 people transferred from Bethpage to Holtsville over that holiday weekend. The Holtsville Production Center was on-line the morning after Memorial Day.

"I really like it out here," said Grace Hull, Media Control group coordinator. "We have a lot more space now. Everything is automated. It's secluded, and I like that."

"It's an excellent design," says Media Control manager Ken Watson. "Bethpage was nice, but it was not designed for the programmer. It was designed as a work area. It was a bit confining and the noise level was a little higher than it is here. This place is great." ■

A Blue Ribbon Event. *On September 10, (L to R) Grumman President George Skurla, Chairman Jack Bierwirth, Brookhaven Town Supervisor Henrietta Acampora and Data Systems President John O'Brien dedicated Data Systems' new Holtsville Production Center.*

New Prowler Gets Its Sea Legs

The latest version of the Grumman EA-6B – called Increased Capability II or ICAP-II – got its sea legs recently.

VAQ-137, the first squadron to get the new ICAP-II Prowler, set sail on August 26 aboard the U.S.S. Saratoga for a seven month deployment in the Mediterranean.

ICAP-II is the third upgrade in the Prowler series since the company delivered its first EA-6B in 1969. Prowlers project powerful electronic signals that jam enemy radars and communications.

VAQ-137 is one of 10 active Prowler squadrons in the Navy. The service has nine deployable squadrons and one training squadron. The Marine Corps has one squadron with three detachments that are usually deployed at land bases, but often go to sea to relieve the Navy crews.

With 13 air wings – one for each carrier – in the Navy, the 10 active Prowler squadrons are in high demand and must trasnfer to different air wings when the carriers go to sea.

There will be less of that soon. An 11th Prowler squadron, VAQ-140, which will be established in October, will also receive ICAP-II aircraft. The Navy plans to form at least one more squadron in the future.

With the exception of VAQ-137 and VAQ-140, all the other squadrons are flying ICAP-I Prowlers. They will eventually be upgraded to ICAP-II configuration. ■

GTSI Tackles Four Shuttles With Ease

For the first time in history, there are four operational Space Shuttles at the Kennedy Space Center (KSC) in Florida.

Having four Shuttles at the Cape doesn't cause any unmanageable problems for Grummanites on the Lockheed-led Shuttle Processing team. The Grumman Technical Services Division now has about 700 people processing shuttles on the ground and testing payloads at KSC. Another 300 are helping start up the western spaceport at Vandenberg Air Force Base in California.

"We have always geared our operation to handle the processing of several Shuttles at once," states Wiley Williams, vice president and director of Grumman's Shuttle Processing Contract effort.

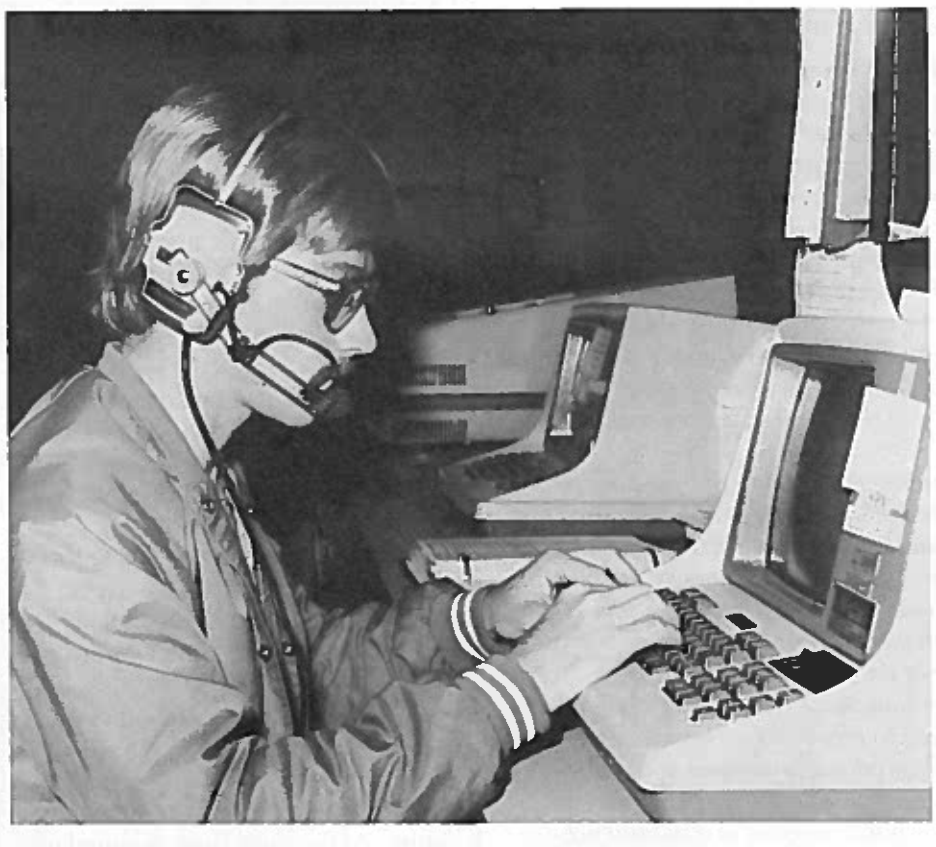
The Grummanites manage the launch processing system, an elaborate network of computers and software systems used in the turnaround process, at both the Cape and Vandenberg. "At the Cape," says Williams, "we support four control rooms 24 hours a day, seven days a week. It's a real challenge to juggle our resources to satisfy the constantly changing requirements of preparing the spacecraft for launches."

There are also more external fuel tanks and solid rocket boosters to turn around between launches with four Shuttles in the processing loop.

Columbia, the first orbiter to go to space, returned to KSC on July 14. It was ferried from Rockwell's Palmdale, California, facility after a series of modifications were completed.

Atlantis, on the other hand, has not yet been to space, though it is now undergoing pre-launch processing. Its maiden flight is scheduled for September. It arrived on the back of the Shuttle Carrier Aircraft – a modified 747 – on April 13.

Those two orbiters join *Discovery* and *Challenger*. ■



Looking For Something? *If it's information, ask data analyst George Kern, a member of the Grumman Technical Services team at the Cape. He is working on the processed data recorder in Firing Room One at the Kennedy Space Center.*

GDSI Scholarship Competition Begins

High school seniors in Nassau and Suffolk counties are invited to sign up for the Grumman Data Systems Institute's Scholarship competition. GDSI will award one full scholarship and four partial scholarships for study in the Institute's Computer Operations, Electronics Technology, Office Automation or Accounting programs.

Interested students can pick up application forms from their school's guidance offices. Application deadline is January 31, 1986. Applicants take a scholarship exam. Finalists will be interviewed by an awards committee, which will determine the winners. For more information call Phil Cincotta, 349-5080.

Data Systems To Upgrade Computer Network For USAF

Arnold Engineering Center getting new computers

On September 12, the Air Force Systems Command chose the Grumman Data Systems Division to manage a major upgrade of the computer systems at the Arnold Engineering Development Center in Tullahoma, Tennessee.

The Facility Computer Enhancement Project (FCEP) contract is worth close to $29 million in new business for GDS.

"Earlier this year, we proved our expertise to the Air Force when we installed the incredibly complex computerized Test Instrumentation System at Arnold," says program director Hans Kampmann. "That system tests jet engines on the ground, under conditions that are identical to those in-flight."

Arnold maintains the free world's largest environmental test facilities for aircraft engines and other aerospace systems. "FCEP will give the engineers and technicians at Arnold more advanced computational tools for their work," says Kampmann.

Initial design work will be performed by key personnel now being transferred from Bethpage. During the design phase, they will work at the GDS office in Huntsville, Alabama. GDS eventually will have about 28 people in Tullahoma working on FCEP at the peak of the program.

They will replace the center's current Digital Equipment Corporation (DEC) computers with eight of DEC's latest model mainframes. In addition, GDS will install the other hardware needed to complete the system, including laser printers and engineering work stations. Grumman will link all this hardware with fiber optic and other communications systems such as local area and high speed networks.

As part of the contract, GDS will write custom software needed for the systems and develop training documentation. The Systems Maintenance Services unit of GDS will maintain the systems for the Air Force for five years.

In addition to DEC, Data Systems is working with three other hardware subcontractors: Contel, Apollo and Network Systems Corporation. ■

Bound For Mexico. *Grumman Emergency Products in Roanoke, Virginia, recently delivered eight new fire trucks to Petroleos Mexicanos. The trucks will be used to fight fires in refineries, piping stations and chemical plants.*

Allied Delivers Eight Fire Trucks To Mexico

For Mexico, oil is a critical natural resource. To help protect that asset, Petroleos Mexicanos(PEMEX) recently took delivery of eight more Grumman fire trucks. The trucks are used to fight fires in refineries, piping stations and chemical plants.

Produced by Grumman Emergency Products in Roanoke, Virginia, the fire trucks were delivered to PEMEX's U.S. warehouse in Laredo, Texas, recently.

Mexico has become a major Grumman Emergency Products customer, says Sales and Service manager Bill Bruns. "This latest delivery follows an order for 26 that we delivered in 1984." Losing competitors for that bid were Emergency One, National Foam, American LaFrance and several foreign manufacturers.

"It's an unusually large number of trucks, since most of our orders are for one or two fire trucks," says Bruns. Most Grumman fire trucks are ordered by fire companies in the United States.

"We have several other bids in Mexico," says Bruns. Grumman is waiting to hear about a bid for 20 fire trucks later this year.

The company is also marketing fire trucks to other South American and Caribbean-area countries. "We just received an order for two trucks from Bermuda," says Bruns. "They are scheduled for delivery in February. Everyone wants to handle that delivery." ■

Spiess Appointed VP Of Electronics Systems

On September 9, the Grumman board of directors appointed Newt Spiess a vice president of the Electronics Systems Division.

Spiess is responsible for the activities involving Guided Weapons Systems and Products for the division. He reports directly to Bob Nafis, Electronics Systems president.

The new vice president worked at Grumman from 1958 to 1982 and held a number of engineering management positions. Those included A-6A weapon systems project engineer, EA-6B engineering manager, A-6A/A-6E deputy technical director, Product Development department head, Product Engineering department head, and chief of Technology.

In 1982, he left Grumman Aerospace to form the consulting firm, Spiess Engineering. Since that time, he has been involved in consulting activities with major aerospace firms, including Grumman, Norden Systems, AIL Division of Eaton Corporation, and Fairchild Republic Company. ■

Newt Spiess

SMS Maintains Upward Trend, Gets $8 Million In New Business

The Systems Maintenance Services (SMS) unit of Data Systems is taking a bigger bite out of the computer hardware repair and maintenance business. In the past three months, SMS has booked approximately $8 million in new business.

The biggest award was a competitive contract from Lockheed Space Operations Company at the Kennedy Space Center in Florida. SMS will maintain the computer equipment on the Launch Processing System, consolidating the work now done by 14 different vendors. The contract is worth about $1.3 million over the next three years.

SMS also inked pacts with the Securities Industry Automation Corporation, the State University of New York, RVCM Inc., and the Penta Corporation. These systems maintenance contracts total approximately $1.7 million.

In the federal business area, SMS netted about $6 million. The GDS unit won awards from the Naval Intelligence and Systems Command and the Pentagon's Office of Computer Automation Resources.

"Prospects remain excellent for continuing this series of wins," says Al Andrus, SMS president. "Decisions are imminent for other awards whose total value could exceed $18 million." ■

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New Appointment

John Young Jr. has been appointed director of Business Operations for Great River Operations.

He reports to Electronics Systems Vice President Bruno Caputo, general manager of Great River. Young can be reached on Ext. 113-6082 in Plant 43.

Let Us Know

We don't want to do all the talking.

We'd like to know what you think about the things you see in these pages, and what you see going on in the company.

Serious comments, questions and complaints are welcome, and will be answered by the people most qualified to respond. We'll get back to you promptly with their replies. If the topic is of general interest, we'll print it.

Letters to the editor should be addressed to Grumman World, 1111 Stewart Avenue, A22-111, Bethpage, N.Y. 11714, and should include your name and address. Letters may be edited for clarity or space.

Keep A Keen Focus On Eye Protection

We all tend to take eyesight for granted – that is, until we begin to have trouble seeing.

Eyesight disorders are far reaching – about one-half of Americans wear some sort of corrective lenses. But there is a lot that people can do to preserve their eyesight – both on the job and at home.

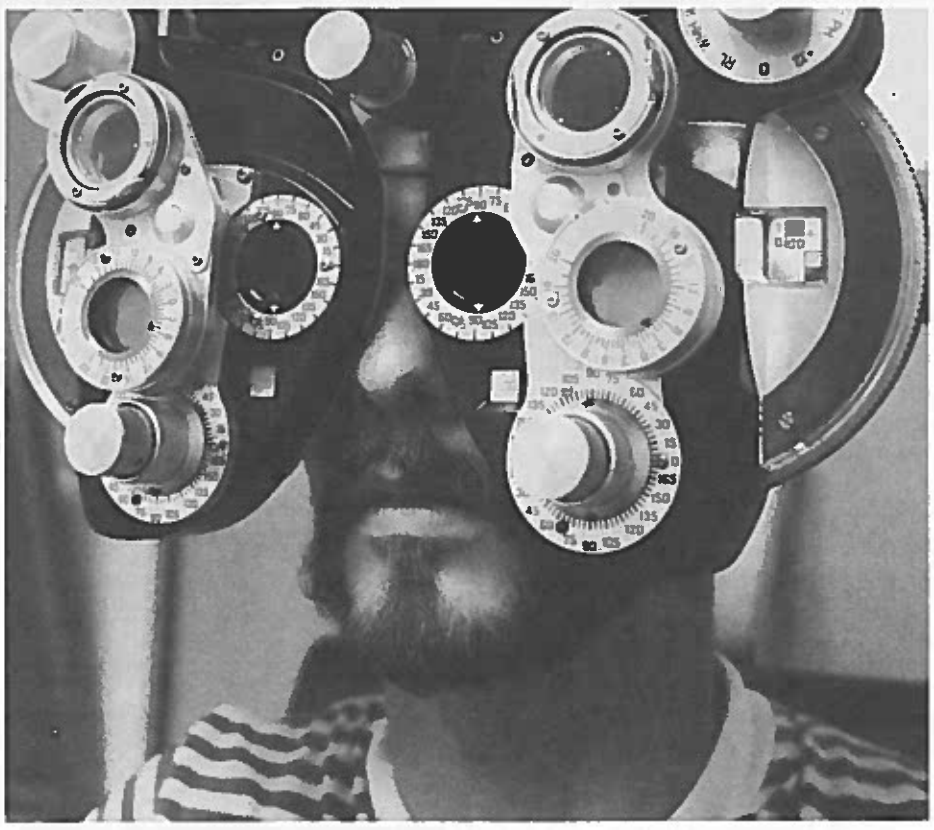
To help Grummanites do that, the company has a comprehensive eye-safety program. Grumman supplies various types of eye protection – such as chemical splash goggles, welder glasses, and laser goggles. Certain manufacturing areas are designated eye-hazard zones. Wearing eye protection is mandatory for all who enter those areas – even if they're just passing through.

Grumman's three full-time opticians issue about 8,000 prescription glasses each year. The opticians work in Bethpage's Plant 2, but visit to other Grumman sites as well. They do frame fittings and service all types of glasses.

They don't examine eyes or prescribe lenses – you must go to an optometrist or ophthalmologist for that.

People who work in production may obtain one free pair of three-millimeter-thick safety glasses each year. Non-manufacturing people can get their glasses made at a reduced cost – and they have their pick of stylish frames. A pair usually runs $15 to $25.

At sites off Long Island, usually the plant nurse will make an appointment with a local optician for a Grummanite. Bethpage supplies some of these sites with lenses and frames, and local opticians handle fittings. Other sites handle the whole procedure locally.



Blurry Vision? *You must go to an optometrist or opthalmologist to have your eyes examined. However, Grumman's opticians issue about 8,000 prescription glasses each year. They also can do frame fittings and service all types of glasses.*

Here are some tips you should remember to protect your eyesight.

- Glaucoma checks for anybody over 35 years of age.
- Have regular eye exams to learn if you need prescription or non-prescription glasses. If you are over the age of 35, annual glaucoma tests are recommended.
- Remember: contact lenses and regular glasses do not protect your eyes from on-the-job injury. Wear safety glasses when in designated eye hazard areas.
- At home, you should take the same precautions that you would at work. Use protective eyewear when using hand or power tools, or when cleaning with household chemicals.
- Sunglasses – even the photogray variety – should only be worn outdoors.

Grumman's Medical Department offers an assortment of free booklets, called "A Guide to Eye Safety." These are at all first aid rooms on Long Island, as well as those sites off Long Island that have a nurse on duty.

If you have a question concerning eyeglasses or vision, call opticians Laurie Gunther, Mike Francesco, or Bill LoGerfo at Ext. (111) 52628 (516-575-2628) or 58444 (516-575-8444) between 8 and 10 a.m. Or visit them in the Plant 2 safety equipment room, located in back of the front lobby. ■

Out Of The Cradle. *Retiree volunteers recently began applying their years of Grumman know-how to yet another aircraft restoration project – the Grumman G-72 Kitten. Above, Joe Bosch, John Wichmann, and Fred Meiners remove wing ailerons. The Kitten was Grumman's first venture into the light-plane field. Only two of the planes were ever produced – a G-63 as well as the G-72. The G-72 took to the skies in February 1946. But the effort was abandoned, partly because the private plane market at that time was sluggish. The restored Kitten will be donated to Long Island's Cradle of Aviation Museum.*

STSOC Loss: 'It's Tough To Take, But You Can't Win Them All'

Late Thursday, September 12, the phone rang in the office of Grumman President George Skurla. The news was not good.

NASA had chosen a Rockwell International-led team over a Grumman team and two others for the Space Transportation System Operations Contract (STSOC). The contract – valued at an estimated $5.5 billion over the next 15 years – was for the management of Shuttle operations at NASA's Johnson Space Center (JSC) in Houston, Texas.

"To say the loss of STSOC did not hurt would be a lie. Right now, we're in the pits," says Tom Kelly, vice president-Information Resources Management (IRM) and leader of the STSOC effort. "We were very optimistic and everyone had worked very hard. It's tough to take, but you can't win them all."

Approximately 150 Grummanites from a number of areas – including Grumman Data Systems, Technical Services, and Engineering – had worked on the various stages of the STSOC study and proposal for more than a year.

"The hardest part of losing this competition is that we are suddenly disbanding what has become a very close-knit group of people," says Kelly. "We became an extended family and it will be tough seeing everyone move on."

Most of the STSOC team members are being reassigned to other projects. Some will remain in Houston where, despite the loss, Grumman will occupy half of a recently completed office building opposite JSC. The 80,000 square foot building had already been dubbed "the Grumman building" by those in the Houston area.

"Had we won, STSOC would have occupied the whole building as well as several others," says Kelly. "But now mostly marketing and GDS people who are working on other projects for NASA will be stationed there."

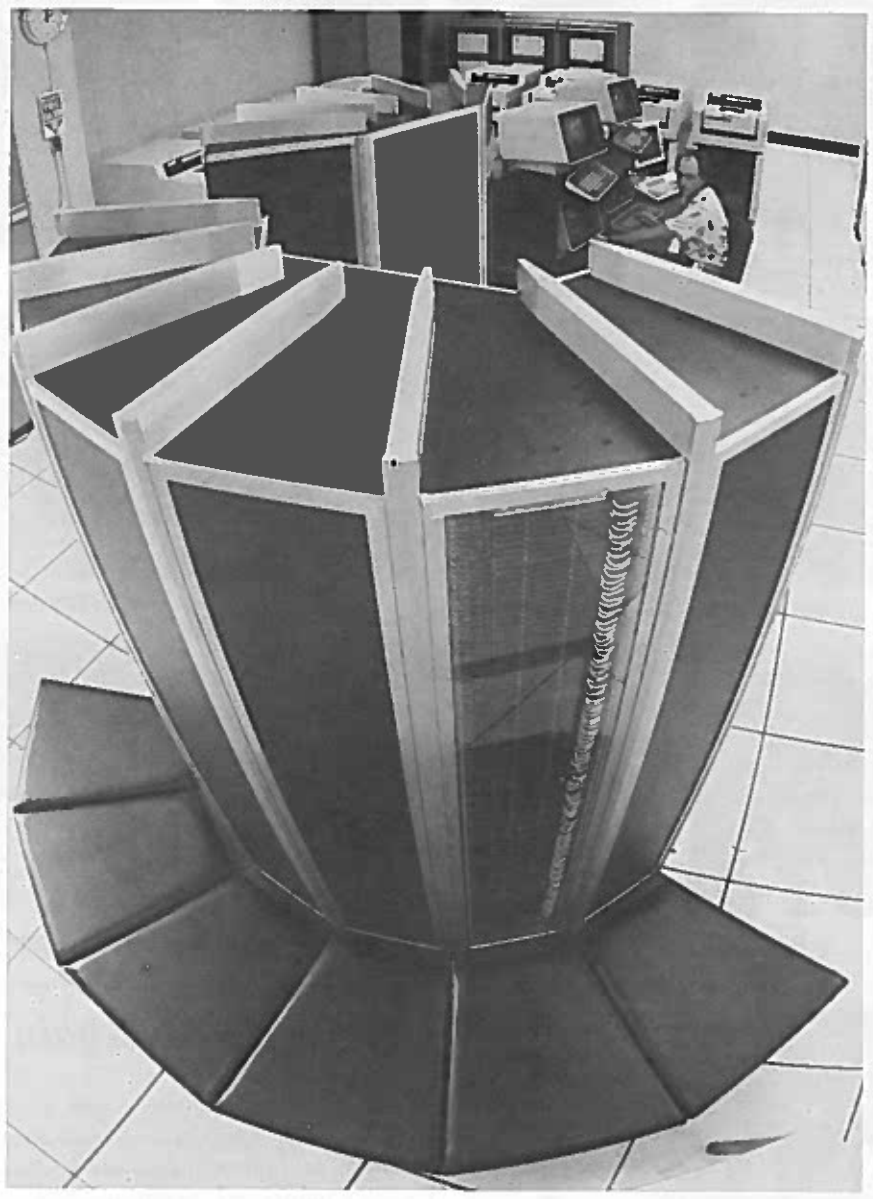
Kelly will return to his position as head of IRM for Grumman Data Systems on a full-time basis. "I've been almost totally wrapped up in STSOC for the last year and a half. Fortunately, my management support people in IRM have done a great job of filling in, but now it's back to work. With the implementation of corporate divisionalization, IRM has a lot of work to do. I almost feel like I'm jumping out of the frying pan and into the fire." ■

Personals

We wish to thank all for the beautiful flowers and for their kind expressions of sympathy for Eugene Parquet. It was deeply appreciated by our family. **Charles Nathan and Family**

I would like to convey my thanks and appreciation to all my friends in Plants 112 and 40 and Employee Services for their thoughtfulness and help during my recent illness. **Jane Fogle**

Your kindness and sympathy at this time are more deeply appreciated than any words of thanks can ever express. Thank you for the lovely flowers. **Mrs. John Nordin**



Super-duper Number Cruncher. *There are less than 100 supercomputers operating in the world today. Grumman joined this elite group of supercomputer users last year. Its Cray I computer is housed in Grumman Headquarters. This powerful machine can perform several hundred million calculations per second. It is so fast – its electronic circuitry so dense – that the freon gas coolant must be pumped through it just to keep it from melting down. Data Systems' supercomputer is used exclusively by Grumman's engineering and scientific community. Above, Anthony McLoughlin of Grumman Data Systems monitors the super number cruncher.*

Open Phone Lines Can Ring Trouble

Eavesdroppers can easily pick up transmitted data

"Few people understand the security risks involved in transmitting information over telephone wires," says Paul Muzio, manager-Systems Integrity and Computing Technology. "The phone lines are not at all secure. Anyone with a handful of Radio Shack equipment and even modest know-how can listen in."

In recent years, Grummanites have become keenly aware of the dangers of speaking about classified business over the phone lines. Someone could easily eavesdrop. The same holds true for information transmitted via computer, telex or facsimile machine over open telephone lines.

Under company policy, no company sensitive material should be sent over unsecured telephone lines. That includes transferring information via telex, telemail, mainframe and personal computers, word processors, and FAX.

Using modern telecommunications systems saves time, but it does have its drawbacks. Grumman-sensitive information transmitted to foreign and domestic sites (including interplant) can easily be picked up by outsiders. Company records stored on computers can be invaded through on-line systems.

The telecommunications systems' use of unsecured phone lines is the most pressing problem. Most phone transmissions, even those sent relatively short distances, travel via microwaves. These microwaves are readily intercepted. Long distance transmissions are even more vulnerable, because they use satellites which broadcast the information over one third of the world.

On Long Island, Grumman has made a substantial investment to protect its microwave system. Company sensitive information can be transmitted via microwave between Calverton, Great River, Melville, and Bethpage. However, the company prohibits sensitive information being transmitted over any unprotected telephone lines.

Vincent Maiorana, manager-Document Support Services, points out that even interplant FAX transmissions go outside Grumman grounds before reaching their destination. "This makes them easy pickings for anyone interested in eavesdropping on company business," notes Maiorana. Company sensitive information sent over phone lines is not encrypted because of the high cost of coding equipment and the added time decoding would take.

Grumman is looking at a new switch system for use with FAX and some computers that could give the company greater control and accountability.

The switch system would route all transmissions through a central check point where a computerized log could be kept. Periodic checks on the kind of material being sent could be made via printouts.

The object is not to scare people away from using the systems that help increase productivity. "We just want to make people aware that in their haste they may be overlooking some basic and very important security procedures," says Maiorana.

It's not always easy to tell which data can and which can't be transmitted. When in doubt, always check first. For questions on general computer security, call Bill Bruno, Data Security manager-IRM, at (516) 575-8045. FAX and mail questions are handled by Terry Hauser, (516) 575-2483. ■

Tips Againsts Taps. *Eavesdroppers can easily pick up information transferred over unsecured phone lines via computer, telex or facsimile machines. And they don't have to physically tap the phone lines. Most phone transmissions, even those sent relatively short distances, travel via microwaves.*

Grumman Wins Four RADC Contracts

Grumman recently received four contracts from the Rome Air Development Center, Griffis Air Force Base, New York.

Grumman was awarded a $1 million space-based radar contract, the Phased Array Lens Demonstration (PALDEM) Test Program. The contract spans 18 months. Dennis Backus is program manager for PALDEM.

Proposals for a system technology study and hardware demonstrations have also been submitted and are being reviewed by the governmental Strategic Defense Initiative (SDI) office.

Also in the space-based radar field, Grumman is on a team, led by Adaptive Technology, Inc., that received an 18-month study contract. It is for the design of an adaptive antenna nulling system, which will be used to counter the jamming of a space-based radar. Study manager is Don Grieco.

RADC also awarded Grumman Aircraft Systems Division a 36-month study contract, "Reliability/Maintainability/Testability for Fault Tolerance of C³I Systems." This project will consist of a study and the production of two manuals.

The study will evaluate five C³I (command, control, communications, and intelligence) systems. The manuals are the "Managers' Guide - Requirements Planning" and "Technical Managers' Guide - Design Implementation." The program manager is Gary Bigel.

Grumman Data Systems received a $350,000 RADC contract for work on the Cartographic Applications for Tactical and Stategic Systems (CATSS-3) project. Justus Riek is the program manager. GDS will specify software required for digital cartography (map making).

The nine-month project is part of an ongoing Department of Defense program to convert existing paper maps to a digital format. This data is more accurate, easily modified, and more transportable than paper. In addition, it can be fed directly to avionic guidance systems. ■

Navy Orders Continued Support At Pt. Mugu

Grumman has won a $28 million contract from the U.S. Navy for 480,000 hours of support at the Pacific Missile Test Center in California.

Under this contract, Grumman Operations at Pt. Mugu will provide software engineering and F-14 Integration Laboratory update, maintenance and operation for three years commencing October 1985.

Obituaries

Frances Jones, Resource Planning and Analysis, Plant 77, died August 19 at the age of 61. She had been with the company since 1969 and resided at 241 SW South River Dr., Stuart, Florida.

Serge Neboshynsky, ILS Operations Support, Plant 4, died August 30 at the age of 63. He had been with the company since 1965 and resided at 62 Friendly La., Jericho, NY.

Elizabeth Fick, Product Planning, Plant 2, died Sept. 3 at the age of 62. She had been with the company since 1967 and resided at 44 Twin Lane North, Wantagh, NY.

Retiree Obituaries

George A. Dobson of 102 E. Arbor Ave., Pt. St. Lucie, Florida, died August 19, 1985. He retired in 1958.

Thomas W. Cashel of 11 Union Pl., Lynbrook, N.Y., died August 24, 1985. He retired in 1985.

Anthony R. Scott of 12 Melony Ave., Plainview, N.Y., died August 24, 1985. He retired in 1977.

Roman S. Horoszewski of 606 Terrace Blvd., New Hyde Park, N.Y., died August 25, 1985. He retired in 1977.

Wladyslaw W. Sikora of 244 Jefferson Ave., Mineola, N.Y., died August 27, 1985. He retired in 1963.

Service Milestones

45

George Sturiale, Details (2)
Rudolph W. Vrana, Mfg. Sch. (40)

40

Camillo A. Kemper, F-14 Sys. Test/Rig. (6)

35

Alphonse Siani, Prod. Plt. Mgmt. (2)
Floyd J. Miller, Mech. Insp. (2)
Jesse P. Archey Jr., Prelim. Des. Mgmt. (5)
John J. Cottrell, Prelim. Des. Mgmt. (5)
Marie Miller, Mail & Teletype Serv. (15)
Joseph A. Maresca, Prog. Mgmt C2-A (25)
Perry Ungerland, Mat'l. Shortage (30)
Edward Schultz Jr., Elect. Box Pan & Draw Fab. (43)
Donald A. Spetta, Admin. Supt. (110)
Richard L. Johnson, Repro. Serv. (110)
Donald H. Specht, Source Insp./Test (289)

30

Louis Cutalo, Assemblies (1)
James T. Bergamine, Wing Inner Pnl. (2)
Harry L. Hicks, Hyd. (2)
Samuel C. Avati, Mgmt. & Staff (5)
Robert H. Bullis, Tech. Dev. Mgmt. (5)
William H. Junge, Maint. Admin. (6)
Lawrence F. Damiani, Mgmt. & Staff (6)
Edward J. Chlanda, Flt. Dev. Ops. (7)
Albert J. Adinolfi, Hyd. (14)
Howard Sherman, Sys. Dev. & Integ. Mgmt. (14)
Val J. Burt, Repair Cont. (30)
Donald H. Frey, Eng. (88)
Nicholas H. Savene, Cust. Supply Reqts. Mgt. (110)
William E. Misak, Cont. & Mech. (110)
Donavon W. Haines, Airframe (267)
Robert N. Larsen, Field Ops. (286)
Edith R. Thumer, Employment (GHQ)
Richard C. Higgins Jr, Corp. Admin. GDS (GHQ)
Stephen Kerekes, Invest. Rel., Grumman Corp. (GHQ)

25

Xenophon Caviris, ILS Retrofit Eng. (1)
Paul J. Nacinovich, Nav. & Cont. Equip. Des. (1)
Louis Grabowski, Conv. Mach. (3)
James L. Kapsalis, Mat'l. Rev. (3)
Richard W. Schmidt Jr., Elect. Insp. (4)
Robert A. Steele, AST Mgmt. (5)
William F. MacFarlane, Tech. Pres. Svc. (5)
Daniel J. Kenny, Source Insp./Test (6)
John A. Morrow, Elect. Sys. Prod., (7)
Charles J. Beisel, Integ. Verif. & Val. (14)
John C. Wheeler, Tech. Reqmts. (30)
Ann T. Genovese, Legal (30)
Algirdas Maciulaitis, Fluid Dyn. (35)
Leo Goercke, Struct. Des. (40)
Frank P. Intrieri Jr., Nav. & Cont. Equip. Des. (40)
Leroy J. Unruh, Prog. Mgmt. (43)
Gennaro Saffioti, Facilities (77)
Frederick J. Artus, Eng. (88)
Franklin L. O'Brien, ILS Tech Writing (279)
Donald T. Scholl Jr., Source Insp./Test (287)
Charles C. Blackwell, Fld. Ops. Logis. (502)
Seymour Dawer, IRM - Info. Process (GHQ)
Robert J. Myers, Sr. V.P. Grumman Corp. (GHQ)
Arlene J. Deech, Accounting, Grumman Allied (GHQ)
Harold J. Cosgrove, Network Remote Supt., GDS (GHQ)

Grumman World Next Edition: October 11

X. Caviris

L. Grabowski

J. L. Kapsalis

R. W. Schmidt

W. F. MacFarlane

J. A. Morrow

C. J. Beisel

J. C. Wheeler

A. Maciulaitis

L. Goercke

F. J. Artus

F. L. O'Brien

D. T. Scholl Jr.

C. C. Blackwell

S. Dawer

R. J. Myers

A. J. Deech

H. J. Cosgrove

Scratching An 18-year Itch. *For the first time since 1967, the Grumman varsity softball team won the Men's Major Industrial National Softball Tournament. The championship team included: (L to R) Jim Verteramo Sr., coach; Herb Mahoney of Recreation; Wayne Wright; Karl Komyathy; Bob Madarasz; Mike Gallo; Rick Smith; Nick Catania; Rich Chatterton; manager Joe Cavalluzzo; Bill Ostrosky; Tom Marion, capt.; Ken Rzemieniewski; Lou Volpe; Tony D'Ambrosio; Charlie Fuschillo of Recreation; Mark Cleary; Jim Verteramo Jr.; and Chris Hofman.*

At Last! Grumman Crowned National Softball Champs

Grumman's varsity softball team ended an 18-year drought by winning the 1985 national championship over the Labor Day weekend.

The varsity defeated defending champion Sikorsky, 14-7, in the finals of the Amateur Softball Association Men's Major Industrial Tournament in Gadsden, Alabama. The victory gave the Tomcats their second national crown. Grumman last won the title in 1967 at Jones Beach, N. Y.

Last year, the Tomcats finished in a tie for 13th place when they fell into the losers' bracket early in the tournament. However, this year the determined varsity squad swept seven straight games and defeated the Sikorsky team that had held the title for the past three years.

Varsity manager Joe Cavalluzzo and coach Jim Verteramo were members of the 1967 championship team.

"This was a really sweet victory for us," said Cavalluzzo. "It's been a long time coming. The team went down to Alabama with the attitude that no one could beat them. And they proved it by playing almost perfect softball."

The Tomcats batted .500 and crossed home plate 85 times while allowing their opposition only 29 runs.

All 10 Grumman starters earned All American honors. Seven players were named to the first team: Tom Marion, pitcher; Jim Verteramo Jr., catcher; Lou Volpe, first baseman; Karl Komyathy, shortstop; Ken Rzemieniewski, third baseman; Bob Beattie, leftfielder; and Mike Gallo, left centerfielder.

Rightfielder Nick Catania made second team while outfielder Tony D'Ambrosio and second baseman Mark Cleary were named to the third team. ■

Dunkin Rides Again

The Sierra Sundowners – with Grummanite Mary Dunkin in the saddle – won its second straight California State Champion Equestrian Drill Team Championship. Dunkin works at the Grumman Allied-Olson plant in Tulare, California.

Her equestrian group beat the Sacramento Sheriff Posse Drill Team. The Posse had held the State title for 28 straight years, before Dunkin's Sundowners came on the scene.

Gen. Gregory Retires

Grummanite Tom Gregory recently retired from the U.S. Air Force Reserves as a major general – the highest reserve rank in the Air Force.

At his retirement dinner, Gregory received the Legion of Merit, one of the Air Force's highest medals for peacetime service. He served 34 years in the Air Force.

A license manager for Grumman's Services Division, Gregory was an assistant to the deputy chief of staff for Logistics, Military Airlift Command (MAC).

"People tend to their civic responsibilities in many different ways. For me, the Air Force Reserves presented a lot of challenges and opportunities," says Gregory. "I've had a very full and rewarding career, but it's time to step down and let others take the reins." ■

A Big Salute. *At his retirement dinner, Maj. Gen. Tom Gregory (L) received the Legion of Merit award from Lt. Gen. Robert Coverdale.*

If The Heat Don't Get You, Then The Cold Winds Will

It's high noon on a hazy August afternoon and the sun is beating down on the runway in Calverton with such intensity that heat waves rise off the ground. The air itself feels like a sticky, smothering plastic blanket to Al Vernol, A-6/EA-6B plane captain, and the rest of the flight line crew as they prepare their aircraft for flight testing.

They have to be especially careful of what they touch on the airplane since the aluminum surface is hotter than a luncheonette griddle. The only respite from the sun's glare is in the shade under the aircraft's wings, and even there the stifling heat is inescapable.

Flash to the middle of February and the open tarmac feels like the Arctic tundra. The wide open runway leaves no protection from the biting wind, and the mercury in the thermometer is nowhere to be seen.

With teeth clenched and eyes watering, the flight line crew spends a torturous hour wandering around the aircraft, shining their flashlights and poking their frozen fingers into every little nook and cranny of the airplane. Conducting what they call a "walk-around," the plane captain and his team try to locate anything that might cause a problem during flight.

In the bone chilling cold of winter or fry-an-egg-on-the-wing heat of summer and everything in between, the flight line crew is on duty for all flight tests.

'This is a Murphy's Law kind of job'

Before an aircraft can lift off the runway it must go through an elaborate pre-flight check. This final inspection is the responsibility of the flight line ground crew, and specifically the plane captain.

"You can never be too careful," says Vernol. "Once you sign off on an aircraft, you're telling the pilot and crew that, to the best of your knowledge, their lives are safe. That's a big responsibility and we take it very seriously."

Sharing that responsibility with the plane captain is the flight line weapons technician. Together they check for fluid leaks, foreign object debris, fuel level, tire wear, security switch sequences, "And just about everything else on the aircraft that could be out of whack," says Larry Swenk, A-6/EA-6B weapons technician.

"This is a Murphy's Law kind of job where just about anything that can go wrong, will, at one time or another," says Swenk.

The walk-around inspection takes approximately one hour. Afterward, the aircraft is taxied out to the flight line for fueling. Only senior plane captains are cleared to taxi.

After the fueling, the team again conducts an inspection, keeping a keen eye out for any fluid leaks. If everything checks out, the plane captain signs off his yellow sheet, giving his approval for another test flight.

Most often, the plane captain and his crew are working with an airplane that has been preflighted. "Which means we also get to be the clean-up crew for the pilots and co-pilots, picking up pencils and papers and gum wrappers and whatever else they might leave behind," says Vernol.

There is a special relationship between the flight line crews and the test pilots. Trust is the key word.

'When a problem arises the customer expects you to fix it, and fast.'

"We like to tease each other a lot, but that's because we're a close team," says test pilot Tom Gwynn. "These guys are the best in the business and we don't often find any discrepancies in an aircraft they've okayed."

The job often includes long hours and tight schedules – with little margin for error and almost no time for corrections. Time spent waiting after they have completed their inspections is the nemesis of all flight line crews. "After the yellow sheet is signed, we wait while an inspector takes it to the Navy office for flight clearance. Then we wait around for the pilots . . . and wait, and wait and wait," jokes EF-111 weapons tech Bill Zebrosk.

In between flight tests, plane captains and weapon technicians spend their time doing turn-around maintenance. This includes everything from repairing a simple loose wire to a complete engine change.

Some plane captains and weapons techs go on the road with their airplanes. The teams travel to different Navy bases where they help support the aircraft during Navy flight tests and check out Navy personnel who will be doing similar jobs.

"Sometimes the travel can be fun. But conditions on the flight line are pretty much the same everywhere," says Doug Halsey, A-6/EA-6B plane captain. "When the aircraft is being flight tested you work like crazy. It's like working in a hospital emergency room."

Away from home base, plane captains also have to contend with the lack of their usual support equipment and personnel. "Out in the field you are really on your own, and when a problem arises the customer expects you to fix it, and fast. And they don't want to hear about your problems – that you don't have the right parts or equipment, or anything," says Halsey.

"Sometimes you have to be pretty inventive to get an airplane in flight condition," he says. "We've had to adapt different parts and tools to fit the job on more than one occasion. Still, you can't do anything makeshift on the flight line when you know a pilot's life is hanging in the balance." ■

Flight Line Frost. *When the winter wind whips across the open flight line, staying warm can be a tough assignment. Bundled up for an icy inspection of an F-14 are: (L to R) plane captain Nick Capobianco; weapons technician John Morrow; and fluids technician Frank Zahra.*

Nowhere To Hide. *When the summer sun glares down on the tarmac, there's not much shade. First flight plane captain Jim Webb sweats out a final check before sending another EA-6B up.*

GrummanWorld
September 27, 1985

Hats Off To LARS

Fred Astaire and Ginger Rogers might not recognize it but that's a "top hat" that research machinist Frank Sweeters is working on. The top hat is part of the wardrobe for LARS, the Large Amplitude Research Simulator located in the William T. Schwendler Engineering Development Center. LARS is a movable research fixture, designed and built by Grumman.

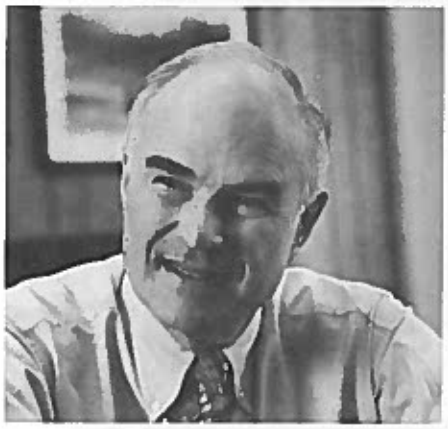
The top hat is undergoing refurbishment and fine tuning in the Corporate Research Center. The aluminum ferris-wheel-like structure behind Sweeter and the one he is working on form what is known as the "cart" section of the top hat.

The cart moves around a network of rail tracking in a ballroom-size 50-by-55 foot room in Plant 14. The fixture is used to simulate six different types of movement: left-right, fore-aft, up-down, roll, pitch, and yaw. When assembled, the top hat is 10 feet in diameter and stands over 20 feet tall.

Made up of several removable mounts, LARS can simulate aircraft flight as well as many features of space movement.

For space research, the Grumman Manipulator Foot Restraint that is attached to the Space Shuttle's mechanical arm can be mounted on LARS. NASA astronauts used LARS to test maneuvers used during last year's Shuttle mission to repair the Solar Max satellite.

A Letter From The Chairman



The wins are easy to talk about.

A phone call comes in, the word goes out, and we congratulate ourselves on winning another contract. We give credit for teamwork and technical excellence and celebrate our success.

Losing is something we tend not to mention – and perhaps that isn't wise.

On September 12 at a quarter to four we found out we had lost STSOC: NASA had selected Rockwell for the Space Transportation System Operations Contract.

It's disappointing for all of us – but that disappointment is most keenly felt by about 150 Grummanites on Long Island and in Houston who were assigned to the STSOC effort. Their teamwork, technical expertise and dedication are no less appreciated than if we had won.

For anyone looking at our company's overall business projections, not winning STSOC is certainly not a catastrophe. Grumman is currently awaiting word on a large number of new business proposals; we don't expect to win *all* of them. We continue to feel confident that many of our bids will turn into contracts, and the good news right now is that we're winning a lot more than we're losing.

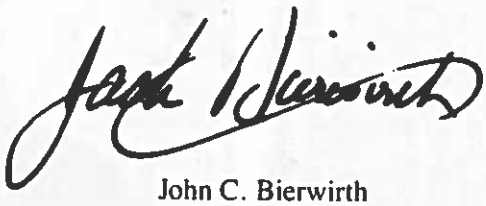
But that may be of little immediate consolation to the 150 people on the STSOC team.

For some of the older people in that group, seasoned veterans of the aerospace industry, the disappointment has a familiar twinge. This wasn't their first big project. Even though they know all about the euphoria of a win, they remember that the last loss felt pretty much like this one – and it doesn't feel good.

For the younger people, this may have been their first difficult exposure to one of the realities of this business: no matter how hard you work, and how much you want it, you don't always win.

Winning teams – and winning companies in our business – are built by all those people who put the disappointments behind them. They have the magnificent ability to turn up the adrenaline all over again. They turn their talent and energy and enthusiasm to the next big job, and the next one, and the one after that. They give it everything they've got.

Just like they did on STSOC.



John C. Bierwirth
Chairman

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